

NEMO Robustness and Test cases WG

Results and discussion on transition period.

Status of recent activities

Purpose of the WG :

Simplify the implementation, use and sharing of NEMO academic demonstration configurations in order to :

- provide reproducible material for training and outreach
- prepare the technical basis for strengthening the community of process driven users of NEMO
- move towards a more robust code development process including a "process-driven" testing suite

Practical questions that have been investigated

- How should academic configurations be implemented in NEMO code ?
- How should academic configurations be distributed in NEMO code releases ?
- How should academic configurations be used (and maintained) by the System Team ?

Main outcomes of WG related activities so far

- Simplification of the implementation of academic demonstration configurations
- Implementation (src + analysis notebooks) of 7 demonstration configurations and distribution in NEMO reference code : CANAL, ICEDYN, ISOMIP, LOCK-EXCHANGE, OVERFLOW, VORTEX, WAT
- Definition of a protocol for NEMO users to share demonstration configurations and analysis notebooks through GitHub
- Preliminary tests and reflexions as to the inclusion of some demonstration cases in NEMO through SETTE and trusting tools

A transition phase for NEMO Robustness and Test cases working group

Analysis :

- Lots of achievements so far : implementing demos is way simpler now ! demo cases have been used for 4.0 beta !
- Activities have been mostly lead by NEMO ST (not a real WG but rather a thread of activities)
- An initial phase is now getting close being completed, we need to readjust a bit the scope of the WG

Short term actions

- Finalise the inclusion of demonstration configurations in SETTE (compilation and restartability) —> end of 2018
- Upload GitHub repo for users to share academic configurations and advertise for it —> Sept. 2018
- Need feedback on the GitHub repo from NEMO users external to NEMO ST, any idea ?

Longer term perspective

two different threads of activity should follow : within NEMO ST and towards the wider community of users

—> **ST** :

- use demonstration cases to formulate regression tests for NEMO continuous integration suite
(requires to formulate boolean test based on some demonstration configurations)
—> specific action listed in IMMERSE proposal
- rationalise the process that leads to the support of a particular demonstration case in NEMO reference

—> **broader community**

- foster the emergence of a community of NEMO process users through the GitHub repos,
- once a user base is indented, reactivate the NEMO WG